THE CHANGING SOUTH

NEW RICHES FOR THE LAND OF COTTON

by Myrick and Barbara Land

The Changing South

New Riches for the Land of Cotton

National Cotton Council

United Artists

The Changing South

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by Myrick and Barbara Land

MAPS BY MARIAN MANFREDI

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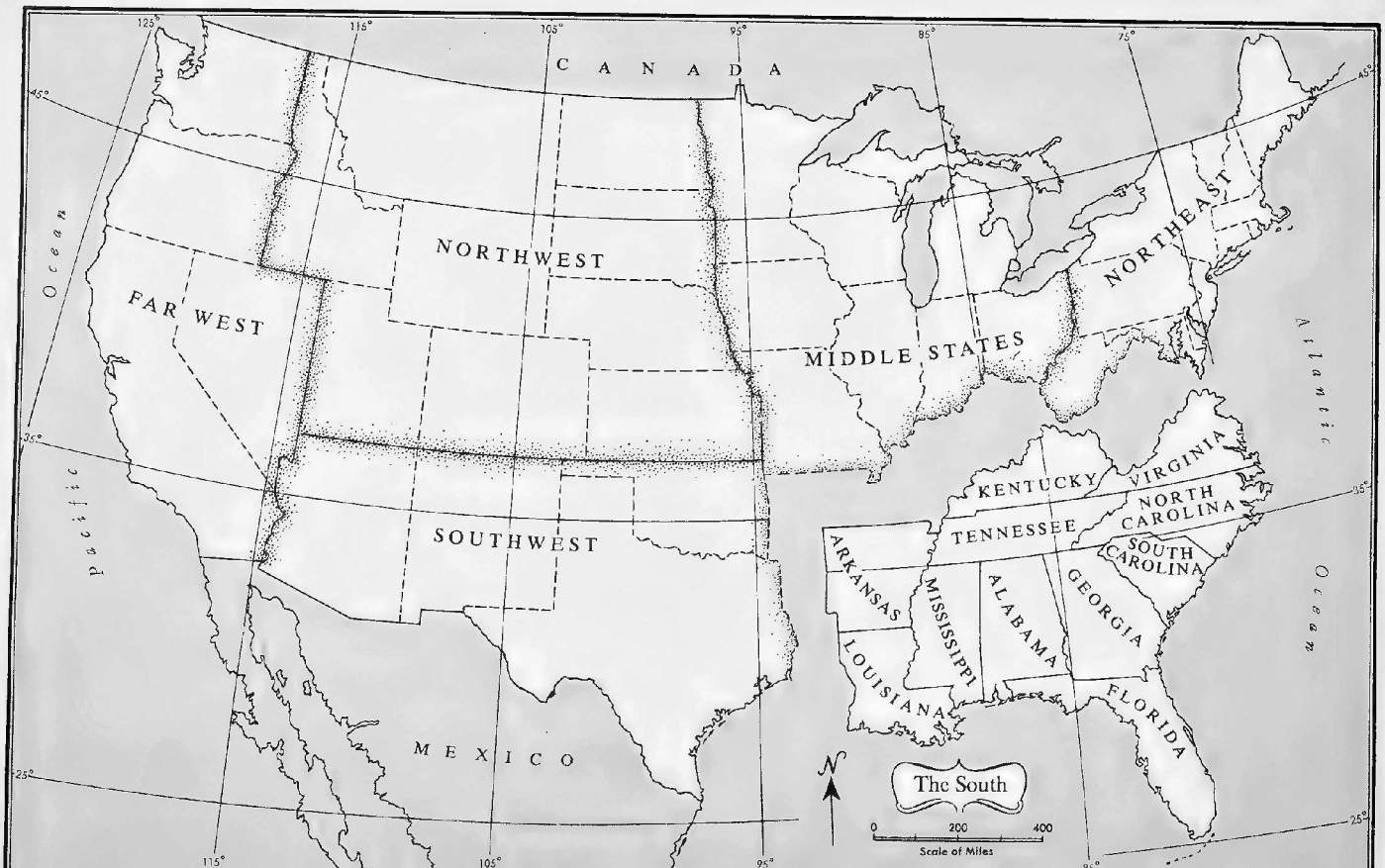
The Changing South

New Riches for the Land of Cotton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The South
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Scale of Miles

About This Book

In 1845, a South Carolina watchmaker named William Gregg wrote several letters to a Charleston newspaper. Steam power, he pointed out, was being used to run factories in England and New England. He suggested that the South start using such power and manufacture products that it had been buying from the North.

Gregg didn't get very far with his idea. The government of Charleston had already passed a law forbidding the use of steam power in the city!

Yet, a century later the South was the birthplace of the Atomic Age. And now it seems likely that the first American spaceships to zoom off toward the moon will be built in the South.

How has the South, which long lagged behind,

leaped to the forefront of the Atomic Age and the coming Age of Space Flight? The big change has been in what the people are doing with their natural wealth.

This book tells the story of that change and the resulting leap forward. It doesn't tell the South's long history. Nor does it deal with the problems of segregation. This is the story of people and land, of people and their resources. It is the story of the changing South, the New South. In a way, these changes are reflected in the changing meaning of "the South."

At the time of the War Between the States, "the South" meant the slaveholding states of the Confederacy. In the 1920's maps often showed the cotton-growing states and grouped them together as "the South."

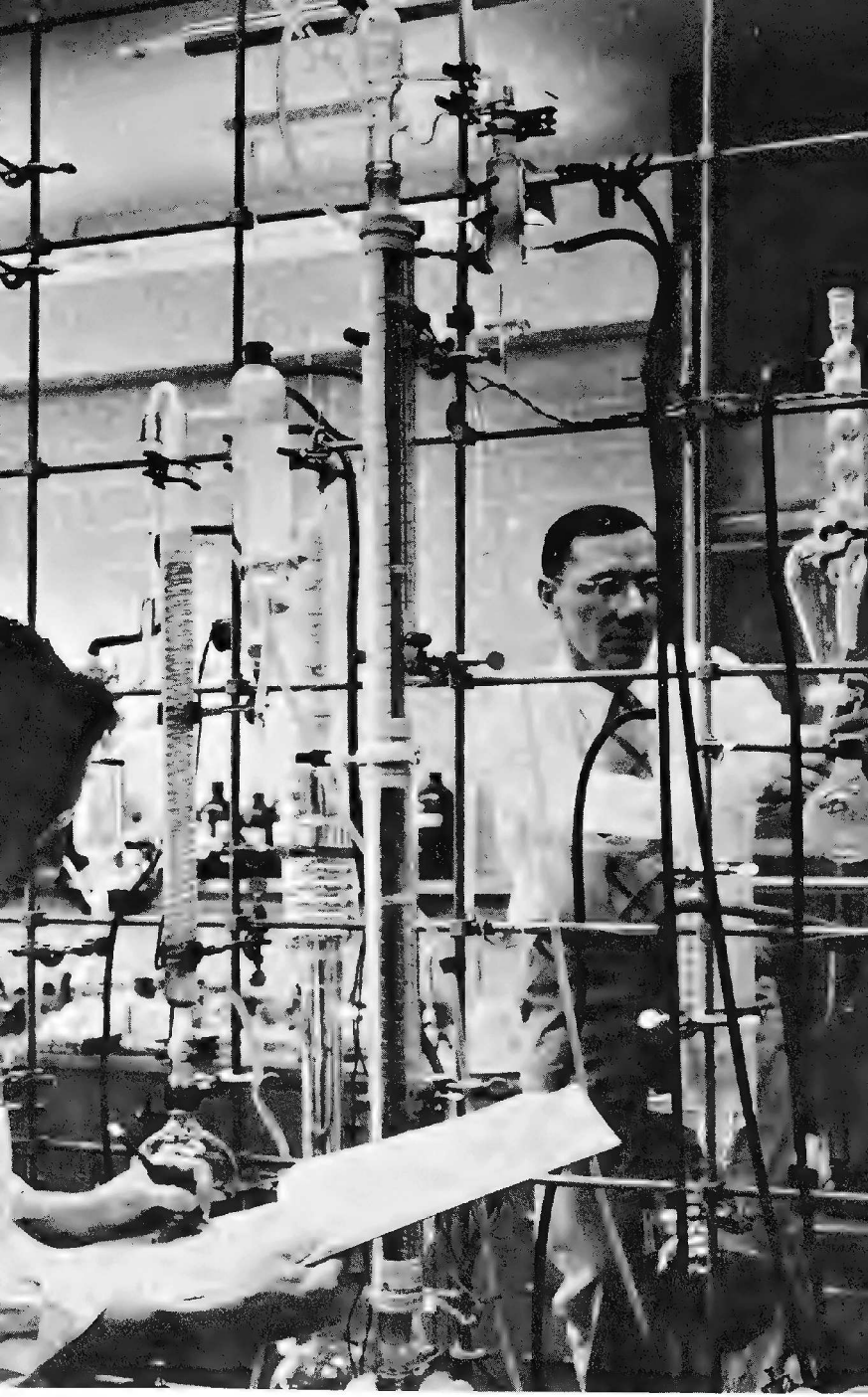
More recently, specialists have worked out a better method for drawing regional boundaries within the United States. A region, these men decided, is an area where people and conditions are more like each other than like the people and conditions of other parts of the country. The specialists asked people where they came from, how they made a living, what crops they grew if they were farmers, what occupations they followed if they were not, what kind of houses they lived in, what they liked to eat, how much money they made, and how they voted.

Using these surveys, geographers divided the United States into six sections. These they called the Far West, Northwest, Southwest, Middle States, Northeast, and Southwest.

"The South" of this book is the eleven states of "the Southeast": Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Arkansas, Tennessee, and Kentucky. It is probably the most rapidly changing region of the United States. But change began only after a long, long search for a "magic formula."

The South has learned to use its manpower and mineral wealth.

Reynolds Metals Company



Allied Chemical and Dye Corporation

In farming and industry, the South searched for a new "magic formula."

1. Search for a Formula

"You WANT to know what's wrong with the South?" a candidate for the governorship of Louisiana asked a large crowd back in the 1920's. "I'll tell you what's wrong.

"The Southerner wakes up in the morning to the sound of an alarm clock made in Massachusetts. He brushes his teeth with toothpaste from New York. He puts on a cotton shirt shipped all the way down from New England. He drives to work in a car manufactured in Detroit. He sits at a desk made in Grand Rapids, Michigan. He picks up a telephone that was put together in a factory in New Jersey . . ."

The candidate continued his list for half an hour, proving that Southerners depended on the North for practically every manufactured product they needed, from cradles to coffins.

Finally someone in the crowd yelled, "All right, you've told us what's wrong. Now tell us what you're going to do about it."

That's where the fast-talking candidate bogged down. He could only say that Southerners should learn to do without products they couldn't manufacture themselves. That was his "magic formula" for a more prosperous South.

Some people in the crowd nodded their heads in agreement. Others looked skeptical. They felt it would be a long time before automobiles began rolling off assembly lines in the South.

"He thinks we should ride to work on a scooter," one man said. "That's about the only 'car' we make."

As the crowd drifted away, there were many discussions of the South's problems and what should be done to solve them. Every thoughtful Southerner had his own ideas about the real "magic formula" that would bring prosperity to the South.

Some felt that the South should concentrate on the crop that had once made it rich—cotton. These people said:

Of course, we've had some lean years. But don't forget that cotton built the South. It supported our fathers and our grandfathers and our great-grandfathers pretty comfortably. We have the ideal climate for cotton and the right soil. We've had plenty of experience raising

it. And there's still a big market for cotton, even in the worst years. We'd better stick to doing what we know best.

Others argued that this "one-crop" idea was the real cause of the South's troubles. They said:

We shouldn't put all our eggs in one basket. You never know when the price of cotton is going to fall. We need to raise wheat and corn and peanuts and livestock and everything else we can. Then a drop in one price will be offset by the rise in another. Besides, it's not good for the land to keep raising cotton in the same fields year after year.

For many years, the South depended on one crop — cotton.

National Cotton Council

Reynolds Metals Company

As they faced the future, many Southerners favored a radical change.

Here and there, men would suggest a much more radical change in the traditional Southern way of life. They argued:

We need factories in the South. As long as two-thirds of our people live on farms and the others depend on farmers for their living, we're going to lag behind. Farming areas have always progressed much more slowly than manufacturing and trading areas. As a beginning, we should build our own cotton mills. It's ridiculous for us to ship raw cotton thousands of miles away. Then we have to pay high prices for cotton cloth when it's shipped back to us from mills in New England or even in Europe. And the cotton mills should be just a beginning. We have raw materials, minerals, water

power, and plenty of hard-working people. We should be using the natural wealth of the South to turn out everything from toothpicks to locomotives.

As the discussions continued, farmers saw all around them signs that the South desperately needed some new formula. Their automobiles bumped along rutted dirt roads, and they passed poor straggling farms of unpainted shacks. Parents and barefoot children looked tired after a long day's work in the hot sun. Many of the children were listless, suffering from hookworm, pellagra, or malaria—diseases that yearly struck tens of thousands of Southerners. Even the land looked sick. It was cut apart by ugly gullies, and each time the rain came a little more of the soil washed away.

Beginning in the 1940's, dirt roads were replaced by broad highways.

Cities Service Corporation

Through the 1920's and the 1930's and the early 1940's, the argument went on and on, while the South seemed to grow poorer rather than richer. World War II brought a temporary change in the Southern states. Farmers planted whatever the Government asked them to produce and had a sure market for it. Some Southerners predicted that the war prosperity would disappear (as the prosperity brought on by the first World War had) and leave the South as troubled as ever.

That didn't happen. In the 1940's, the South finally found a new "magic formula" that really worked. This formula has changed the whole face of the South.

Today along the same route followed by those farmers of the 1920's, the picture is dramatically different. The dirt road has been replaced by a broad, smoothly paved highway. On every side there are new homes, including many brick ones. Television aerials sprout from the roofs of these homes. Even the poorest house has some kind of automobile or truck, and most have a shiny late model. The children look healthy, well dressed, and well fed.

Before we take a look at the South's *new* "magic formula," let's go back and take a look at the old formula, developed in the 1790's. An accidental meeting between a young college graduate and a general's widow played an important part in the development of that earlier "magic formula." The story begins far away from the South, at a famous college in New England.

2. A Meeting Changes History

ONE DAY in the 1790's, a student at Yale decided to go South after graduation and look for a job as a tutor.

While traveling south by ship, young Eli Whitney happened to meet Mrs. Nathanael Greene, widow of the famous general. She invited him to spend a few weeks at the Greene plantation in Georgia.

There Whitney heard the cotton planters talking endlessly about their biggest problem: pulling the soft white cotton lint away from the cotton seed. Even the hardest-working slave could separate only one pound of lint a day.

'If we could just speed up this one step, the South could become the most prosperous part of the country," the planters said. England, they went on, was ready to buy all the cotton they could produce, and the South-

ern climate was just right for raising cotton. The early Southern spring resulted in the long growing season needed by cotton.

England's eagerness for cotton, Whitney learned, stemmed from the work of three English inventors. They had recently developed machines that could spin and weave cotton hundreds of times faster than anyone had thought possible.

The first of these was James Hargreaves, who had perfected a spinning "jenny" that could spin 120 threads at a time. The "jenny" was replacing the old hand-turned one-thread spinning wheel,

About the same time, Richard Arkwright was producing a machine that turned out better, harder thread. And a few years after that, Edmund Cartwright invented a power-driven loom. The loom could take this better, more quickly spun thread and weave it into yards and yards of cloth in a single day.

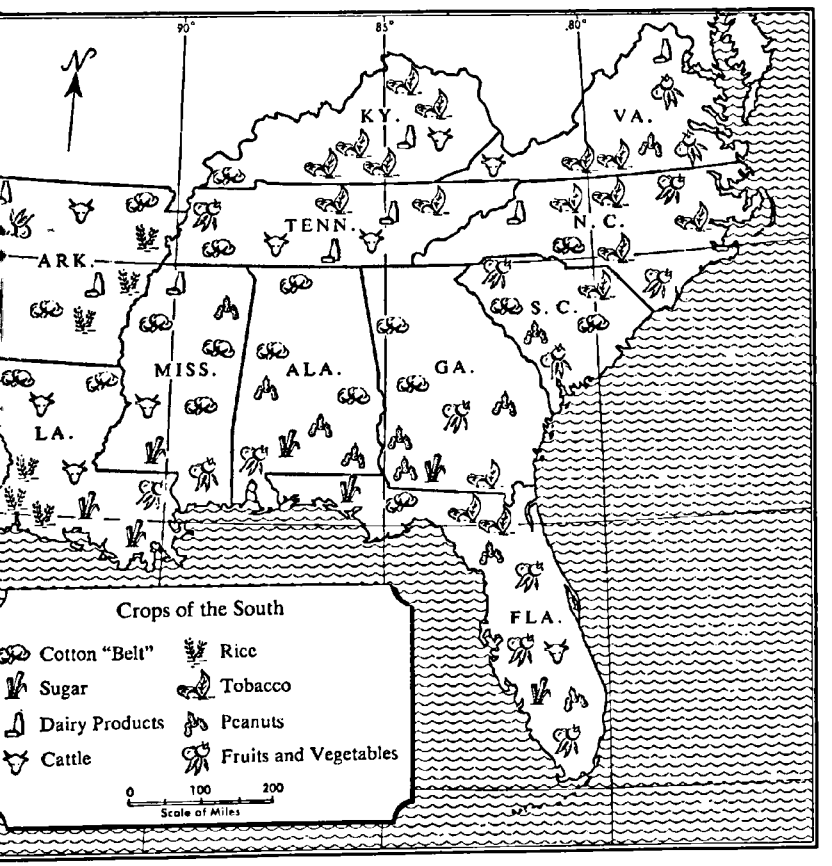
"We could supply England with enough cotton to keep those new looms operating around the clock," the planters told Whitney, "if we could just find a speedier way to separate the lint from the seed."

Whitney set to work on an invention of his own. In the spring of 1793, he completed the model of a cotton gin that could clean the seeds from 50 pounds of cotton a day. Later the gin was improved so it could do the work of 350 men.

That accidental meeting between Eli Whitney and Mrs. Nathanael Greene changed the entire history of the South.

Before Whitney's gin created "the land of cotton," the South had concentrated on growing two other crops: rice and tobacco. There was a ready market for both of these products, but large parts of the South weren't really suitable for raising them.

Rice needs wet weather, warm swamps, and marshes. The tidewater coasts of the Carolinas and Georgia had



this warm, wet climate. Great rice plantations were started there in the late 1600's and early 1700's.

Because rice had to be cultivated by hand, the planters brought in slaves from Africa. As the demand for rice increased, planters placed more and more land under cultivation and began buying slaves by the hundreds.

Tobacco requires rich, well-drained soil. Virginia, Kentucky, and North Carolina were particularly suited to this crop. Like the rice growers, tobacco planters developed great plantations and used slave labor.

Rice and tobacco made some Southerners rich. But now, with the help of Eli Whitney, the South had found a "magic formula" which promised far greater wealth than it had ever known.

The formula was simple:

1. Take a very large piece of land.
2. Buy slaves to work it.
3. Plant a single crop—the much wanted cotton.
4. When the land is exhausted, move to another piece.

It may seem strange now that a formula based on slavery, wastefulness, and gambling on a single crop worked at all. Yet the fact is that it worked very successfully for Southern planters. 1850 to 1860 were the most prosperous ten years in the early history of the South.

But though the formula worked, some Southerners were not at all sure that it was a good one.

National Cotton Council

Whitney's gin turned the South into the land of cotton.

One man who tried to change the South long before it was ready to change was William Gregg.

Gregg argued that the South wasn't making use of two of its greatest resources—the brains of its people and the water power of its streams.

He could see no reason why the South should ship its cotton to distant mills and then buy back cotton cloth from them. Gregg thought that the South should use its raw material, its man power, and its water power to produce finished cotton cloth. This could be sold all over the world and bring more money into the South.

South Carolina State Development Board

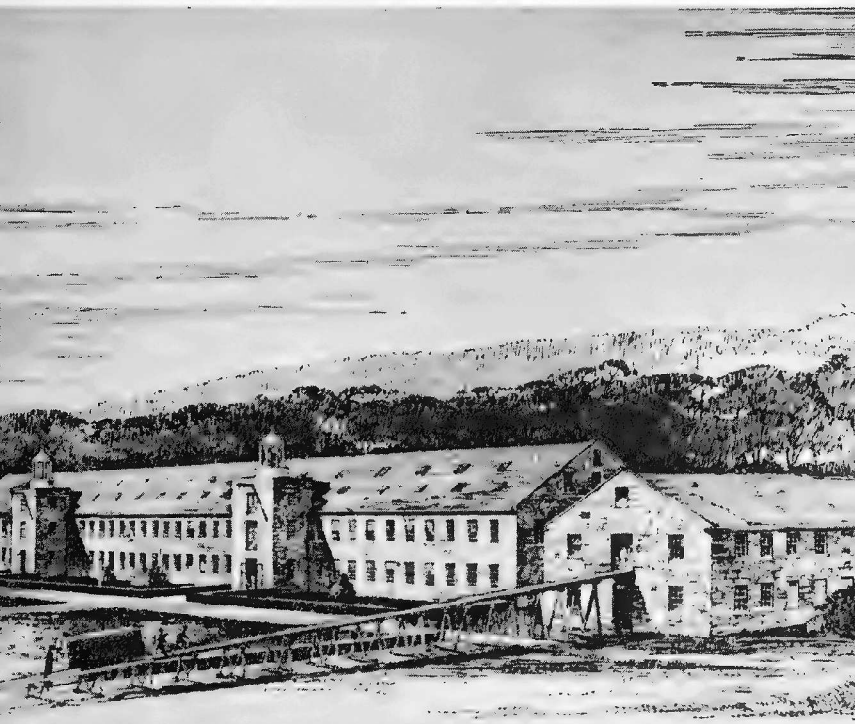
Gregg thought the South should develop its water power.

Gregg wasn't satisfied with just talking. He was an energetic man and he spent some time traveling in New England, studying the processes used in the cotton mills there.

Charleston, he thought, would be a logical place to establish a great new cotton mill. But the city government wanted to preserve the traditional Southern way of life. It had ruled against factories or mills that used steam power. Since that was what Gregg planned to use, the law prevented him from trying his idea in Charleston.

Gregg finally built his cotton mill at Graniteville, S. C.

Graniteville Mills



Gregg wasn't easily discouraged. He asked the state governments in Georgia and South Carolina to issue him a charter to build a cotton mill. Finally the South Carolina government agreed.

In 1846, William Gregg opened a mill in Horse Creek Valley, six miles from Aiken, South Carolina. It was the first of its kind in the South. In many ways it was unlike any other in the world. The buildings were of white granite mined from a nearby quarry. Gregg built neat white frame cottages for his workers. Although it would have been cheaper to make the houses all alike, Gregg wanted his mill village to be more attractive than the crowded, drab ones he had seen in some New England towns. He varied the architecture of the houses. He encouraged workers to plant flowers and shrubs.

Gregg's village was named Graniteville, and for many years it was a showplace. Fountains in front of the main buildings spouted fifteen feet into the air. Other mill owners visited Graniteville and copied some of Gregg's ideas.

Once Gregg had his mill in full operation, he felt personally responsible for the people who lived and worked there. He saw to it that the children went to school. He refused to let children under 14 work in his mill, though mills and factories in the North were hiring children as young as nine or ten. He built schools, hired the best teachers he could find, and provided free

South Carolina State Development Board

This modern quarry is in the same area from which Gregg obtained granite for his mill.

textbooks. If the children played hookey, Gregg made the parents pay a fine.

Like many strong-minded men, Gregg sometimes tried to run other people's lives. He even planned weekend recreation for his employees, and saw to it that they amused themselves in ways that he approved.

In the 1840's and 1850's, a few other mills were started in the South. A few factories were established. But an energetic man could still make a fortune by using the "magic formula," and few saw reason to experiment with riskier ventures. In 1860, all the cotton mills in the South produced less cloth than the one small city of Lowell, Massachusetts.

But during those prosperous years more and more people began to attack an important element in the South's formula: slavery. A few rich Southerners showed their doubts by providing in their wills that their slaves should be freed. Antislavery societies gained thousands of members in both North and South.

The long-smoldering dispute over slavery and other issues between the industrial North and the agricultural South finally brought on the War Between the States, which lasted from 1861 until 1865.

Slavery came to an end. This meant an end to the old formula that had brought great wealth to Southern planters. The long search for a new "magic formula" was about to begin.

3. Dark Clouds and Silver Linings

In 1887, an English scientist named Thomas Henry Huxley predicted that western civilization would disappear by 1937.

Cotton and other plants, he said, would have used up all the nitrogen in the soil. Nitrogen is essential to plants.

Huxley's gloomy prediction disturbed some Southerners. They could already detect signs that thousands upon thousands of once-rich acres had been damaged by a century of cotton-growing.

In the old days there had been an easy solution to this problem. When land was exhausted, the farmer simply abandoned it and moved on. After a time, this part of the "magic formula" no longer worked. Most of the South's good farmland had been parceled out by the 1880's, and farmers had to stick with the land they had.

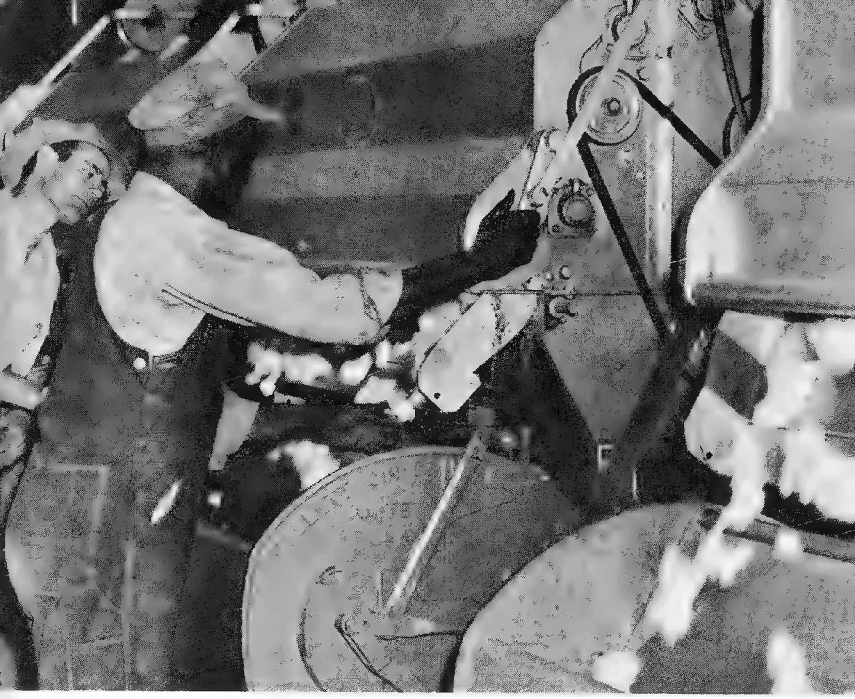
Many—including freed Negroes—had no land at all, and no money to buy land. In the difficult years after the war, penniless white farmers and freed Negroes became sharecroppers.

Sharecropping made it possible for big landowners to keep plantations in operation. Since they could no longer use slaves, they needed to attract free workers. But, impoverished by war, few landowners had money for wages.

Instead, landowners and poor farmers made an agreement in which little money changed hands. The farmers took over a small plot of land and were supplied with

Sharecroppers turned part of their crops over to the landowners.

National Cotton Council



National Cotton Council

Increasing cotton production still keeps gins busy.

seed, a mule, a crude plow, and the bare necessities of life. In return they agreed to turn part of their crop over to the landowner. After giving the landowner his share, the farmers could sell the rest of the crop.

Sometimes this system worked very well. Hard-working sharecroppers saved enough money to buy their plots of land outright.

But sometimes the landowner took such a big share of the crops that the farmers were never able to get out of debt. Eventually these sharecroppers lost any incentive to try new farming methods or to keep the land rich and productive.

Even under these circumstances, the South managed to increase its production of cotton. With a steady rise in population, there were hundreds of thousands of workers available. More and more acres were planted to cotton by landowners who hoped to make a fortune.

The result was that they produced more cotton than the busy mills of New England and Europe could use.

Once mill owners realized there was a surplus of cotton, they no longer bid against each other for it. They could get all they wanted at the price they wished to set. When the South had a particularly good cotton year, the price for each bale went down. Sometimes a farmer would find that he couldn't sell his cotton at any price.

The old "magic formula" had broken down completely. Energetic Southerners could no longer take over thousands of acres of land as the early planters had. They couldn't use slaves to cultivate their farms. When the land began to wear out, they had to keep farming it rather than moving on to fresh, rich land. Even when they succeeded in raising a good crop of cotton, often they had to sell at low prices.

There were many dark clouds hanging over the "land of cotton." But in the 1880's and the early 1900's there were hints of a brighter—and different—future for the South. Two events indicated that the time might come when the South would no longer be completely dependent upon farming.

The first came in 1887, when some workers were building a road between Pine Bluff and Little Rock, Arkansas. The road crew happened to include a man who had studied geology. He reached down and picked up a handful of the clay being used to surface the road.

As he examined it, one of the other workers asked: "What is it?"

"I'm not sure," he said. "But I think this stuff may be too valuable to use for surfacing a road."

The geoligist's guess was right. The road-working crew had accidently turned up a rich deposit of bauxite.

The timing of the discovery was fortunate. Only

Valuable deposits of bauxite were discovered in Arkansas.

Reynolds Metals Company

three years earlier, a company had been formed to make aluminum from bauxite. If the Pine Bluff–Little Rock road had been built in 1877 instead of 1887, it's entirely possible that this valuable mineral would have been wasted. Instead, the state of Arkansas profited from the beginning of a great industry.

That accidental discovery was one important sign of things to come. Another sign was a dramatic experiment on the sandy beach at Kitty Hawk, North Carolina, in 1903.

Believing they could count on more clear weather in the South than in the North, Orville and Wilbur Wright traveled from their home in Dayton, Ohio, to Kitty Hawk, near the end of 1903. There they put together a frail craft built of light wood, piano wire, linen, and glue. On December 17, 1903, they started the small motor they had built. Orville Wright stretched out on his stomach on the plane's lower wing. The airplane rose from the ground and remained aloft for 12 seconds. That 120-foot flight marked the birth of the Air Age.

The good climate that had attracted the Wrights was another Southern "resource" which was to prove extremely valuable as the years went by.

But for decades after the Wright brothers' historic flight, most Southerners were still more concerned with farming—especially cotton farming—than with bauxite, airplanes, or any other potential source of future wealth.

United States Navy

Modern Air Age began with Wright brothers' 1903 flight.

The cotton farmers, who had run into endless problems, were battling a new enemy. From Mexico or Central America, a tiny black beetle had moved across the border into Texas in the 1890's. This insect thrived on cotton, and soon found its way to the fields where the South's number one cash crop was growing.

4. Farmers Find a New Formula

THE BOLL WEEVIL is a tiny black beetle which deposits its eggs in the bolls of cotton. Hungry young boll weevils began showing up in Southern cotton fields in the early 1900's, and they were soon destroying as much as $200,000,000 worth of cotton in a single year.

Although most Southern farmers hate the boll weevil, one small Alabama town has constructed a monument to this ugly pest.

In dedicating the monument, town leaders said that the boll weevil had made cotton-growing so risky that farmers had been forced to try other crops. As a result, the whole South had benefited immensely.

Actually, the boll weevil doesn't deserve full credit. After depending on cotton for more than a century,

Southern farmers finally decided that the one-crop idea was leading them to disaster. They could no longer even estimate what the price of cotton would be—provided they managed to raise a good crop and protect it from boll weevils. The price might be as low as 7 cents a pound, or as high as 40 cents.

In the parts of the South where tobacco was the one cash crop, the problem was even worse. The average price for a pound of tobacco was 100 times as much in 1920 as in 1921!

Then, too, the land was showing more and more signs of erosion. Farm experts said that concentration on a single crop was partly responsible. They also blamed Southern farming methods and said that the whole system of farming needed overhauling.

Just by taking a look around them, farmers could see that much of the South's once-rich land was becoming poorer and less productive each year.

Part of the responsibility could be placed on the early settlers in the South. They had cut down, uprooted, or burned millions of trees as they cleared land for cultivation. They didn't know that decaying leaves fertilize the land or that trees hold water in the soil. And they didn't realize that trees hold the soil in place and protect it from erosion.

Erosion—the enemy of all farmers—means the moving of soil from one place to another by water

Allied Chemical & Dye Corporation

By spraying insecticides, Southerners protected valuable trees.

or wind. In the South, sometimes as much as 18 inches of rich topsoil was washed away by rain or blown away by the wind, leaving nothing but bare rock.

Another destructive practice long followed by most Southern farmers was "plowing a straight furrow." In fact, one test of a good farmer had been his ability to plow in a straight line regardless of the contour of his land.

For decades progressive farmers had considered this a mistake. When a plow went straight up and down hills, these farmers said, it actually was digging ditches in which rain water would carry away topsoil.

Many practical farmers had scoffed at this idea. Now they listened more closely when experts attacked tradi-

tional "straight furrow" plowing. It was much better, they said, to study the contour of the land and then follow the shape when plowing. This meant plowing around hills rather than up and down them. In some cases, slopes should be terraced to keep soil from washing downhill.

Progressive farmers also advocated planting grasses in fields during winter. In spring, the grasses could be plowed under to nourish the soil.

State and Federal governments assigned agricultural experts to many areas. These men began to work with farmers—demonstrating new methods and persuading

Contour plowing saved farm land from erosion.

South Carolina State Development Board

farmers to try them. They had another mission, too. New farming methods alone wouldn't save the South's soil. Farmers would also have to stop growing cotton in the same fields year after year.

In some areas the experts convinced farmers that they should plant peanuts in land that had been almost exhausted by cotton. Cotton takes nitrogen from the soil; peanuts put it back, the experts explained.

This idea had been worked out by George Washington Carver, a Negro scientist who was born a slave. Carver had also discovered many unexpected uses for peanuts. The nuts and their shells can be used to make flour, ink, dyes, soap—and even insulating board. These uses made peanuts a good cash crop.

After the farmers had raised one or two crops of peanuts, the experts persuaded them to experiment with

A farmer sprays nitrogen fertilizer over his soil.

Allied Chemical & Dye Corporation

South Carolina State Development Board

Turkeys have become a valuable cash crop in the South.

other cash crops. They wanted farmers to break the habit of planting most of their land to cotton. Some farmers tried truck vegetables, corn or wheat with great success.

The South found it had been overlooking many products that could increase farm income. Farmers began raising more chickens, turkeys and eggs. In 1952 poultry farming brought them more money than they had made from cotton in 1937.

Southerners discovered that they didn't have to depend on the Midwest for meat and dairy products. Herds of livestock can be seen grazing now on most large Southern farms.

Meanwhile, new and better ways of cultivating rice were developed along the coastal plains of Louisiana and Texas, the lowlands of the Arkansas River, and the prairies of Arkansas.

Here the broad plains lend themselves to farm machinery. With machines and methods brought from the Midwest by former wheat farmers, growing rice has become a highly mechanized business. Individual farmers no longer put in hours of back-breaking labor to grow rice. Today huge plantations are run like factories. Workers who operate the heavy machines are employed on schedules and paid fixed wages—with extra money for overtime.

The same "farm-factory" system is used in the Louisiana "sugar bowl" and the Florida Everglades to grow sugar cane. Sugar mills operate close to the fields.

Another crop, long ignored as a possible source of Southern income, is wood. In fields once cleared of forests to make way for cotton, trees are slowly taking hold again. Now nearly half of the nation's forest land is in the South. Its climate is so favorable that a pine tree will mature twice as fast as in Canada. And pine trees flourish even in soil that has been worn out by cotton.

These trees are the raw material of paper, furniture, boxes and barrels, rayon cloth, veneers, and plywood. They are also used to make "naval stores"—an old-fashioned name for products like turpentine, rosin, pine

Creole Petroleum Corp.

Today some Southern plantations are run like great factories.

tar, pitch, and gum, which were originally used in shipbuilding.

Gradually the South has developed a new "magic formula" for agriculture. It bears little resemblance to the old one. Free workers, using new ideas and methods, have proved far more productive than slaves. Southern farmers have learned to conserve the soil. And the South's long dependence on one crop has ended. Cotton is still an important product, but a bad cotton year no longer means ruin.

Take South Carolina, for example. In 1924, two-thirds of its farm income came from cotton. Now only one-third of the money comes from cotton. South Carolina farmers are raising big crops of oats, wheat, tobacco, peaches, pecans, corn, poultry, and livestock. A bad year for cotton may be an excellent year for

New methods have brought new wealth to the South.

Allied Chemical & Dye Corporation

Allied Chemical & Dye Corporation

Progressive farmers are eager to try new ideas in agriculture.

peaches or poultry, and few farmers now end the year in the red.

This has brought startling changes in the lives of Southern farm families.

If you could drop by to spend an afternoon at the farm of William Barbour in Todd County, Kentucky, you would see what a difference new ideas have made.

On a July afternoon, Mr. Barbour goes to his refrigerator and brings out a couple of soft drinks. You sit with him on the porch and watch as his new irrigation system sprays water over his tobacco field. Inside the house, Mrs. Barbour is preparing vegetables for the family's electric freezer. The two Barbour girls sit on the porch for a while, then drift into the living room where the TV set is.

"A few years ago, July wasn't a time when I could sit down and relax," William Barbour says.

"My wife and I and the youngsters would work in the fields from sunup to sundown, spraying the tobacco. We sprayed it by hand, and it took a lot of time. If the tobacco worms got our crop, our whole year's work was lost. We didn't have anything else to rely on for income.

"Now we know better. I still raise tobacco, of course, and it's a good cash crop. But I use some of my land for corn and oats, and I've also built up a dairy herd own cows."

"Back in the 1920's and 1930's, a farmer couldn't manage to raise tobacco and milk 23 cows every day. Electricity has made all the difference. If I had to milk those cows by hand, I wouldn't have time or energy left for anything else. By machine, they can be milked in about an hour, and during part of that time I'm just standing by and watching.

"Milk's a good 'crop,' too," Mr. Barbour says. "It's my year-round stand-by."

Although Mr. Barbour operates a sizable dairy farm, he gets his own milk from a supermarket in town.

"We want pasteurized milk," he says. "And here we don't have the equipment to process it. We just store the raw milk in a refrigerated milk house overnight. Early the next morning, a truck from a big dairy col-

lects our ten-gallon cans and takes them to a processing plant. There the milk is tested, pasteurized, homogenized, and then distributed to stores. I suppose we sometimes end up buying a quart of milk from one of our own cows."

If you asked Mr. Barbour to give a one-word explanation for the South's recent agricultural progress, he wouldn't hesitate in answering: "Education."

"In the old days," he says, "farmers really didn't care much about school. Anybody who was planning to become a farmer was supposed to listen to the old folks and pick up the information he needed that way.

A dairy farmer's wife buys milk—at the nearby supermarket.

Union Bag-Camp Paper Corporation

South Carolina State Development Board

South Carolina farmers store grain in these huge silos.

Even if a youngster had some ideas of his own, he wasn't allowed to say much about it. He was supposed just to sit still and listen to his daddy or grand-daddy.

"Nowadays the older farmers listen to the young ones. A boy who has gone to agricultural college knows about fertilizers and crop rotation and new farm machinery. Nearly everyone agrees that college is as important to a farmer as it is to a lawyer or a doctor or an engineer. To be a really good farmer today, a man has to be part mechanic, part electrician, and part chemist."

New ideas have been cultivated in the South along with new crops. The result is a new "magic formula" far more productive than the old one. Farmers now count on an income from many crops rather than one. They've learned to use skilled man power plus machinery in place of slave labor. And they've learned to conserve their land rather than waste it.

With increasing amounts of machinery on Southern farms, fewer and fewer farm hands have been needed to plant and harvest crops. Yet the South's population figures have been rising steadily. The result is a yearly migration of young Southerners from farms to cities and towns.

In the 1920's and 1930's towns and cities offered little to ex-farmers. Some found jobs with low pay and no future. Many found no work at all and drifted back to the overmanned farms.

Today the situation is far different. Farm youths who prefer life in the city find many Southern cities ready to welcome them. Energetic young men are a part of a new formula that is changing once sleepy towns into busy manufacturing centers.

Farm youths now find jobs waiting for them in Southern cities.

Reynolds Metals Company

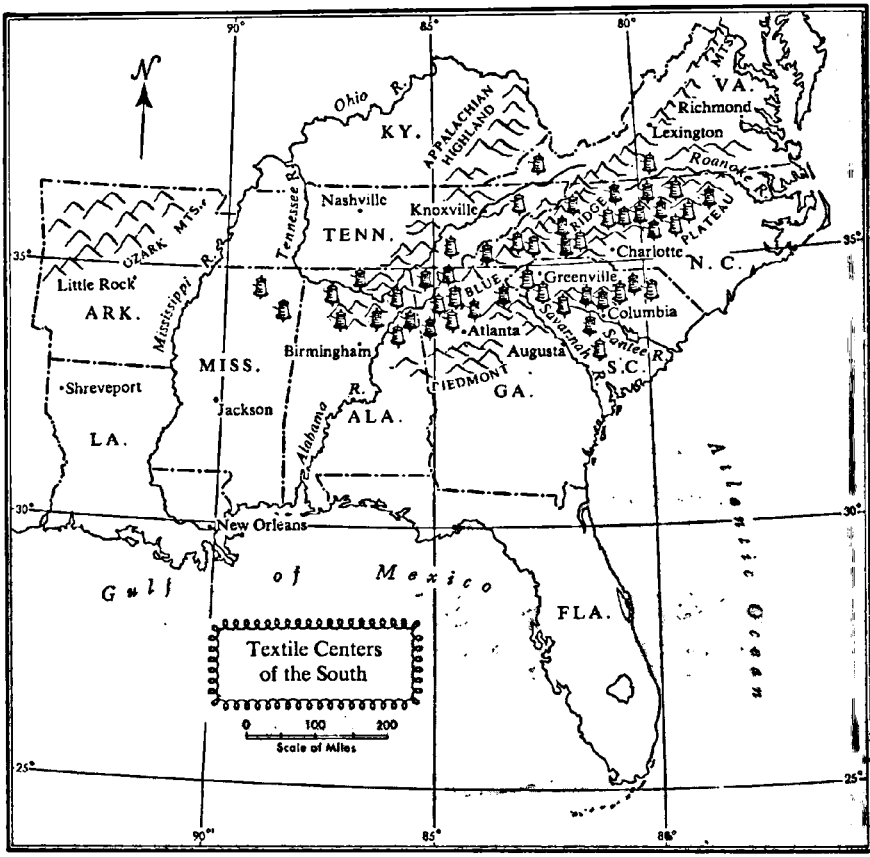
5. Factories in the Cotton Fields

TWENTY-FIVE YEARS AGO Greenville, South Carolina, was a drowsy little town of 29,000 people. By paving a few streets, it had just outgrown its old reputation as "The Muddiest Town in the South."

Today Greenville is a bustling city with four times as many people. Its new title is "The Textile Capital of the World."

Mills in Greenville weave almost every kind of machine-made cloth known. Other factories—some 250 of them—turn out products as diverse as chemicals and dyes, pottery, threads, heavy machinery, plastic bags, and truck trailers.

New factories mean new jobs. And new jobs mean more money being spent. So other Carolinians have



been drawn to work in department stores, supermarkets, restaurants, telephone offices, bus stations, hotels, and hardware stores in Greenville. There are more jobs for doctors, dentists, lawyers, and teachers.

What has happened in Greenville has also been happening in hundreds of other Southern towns.

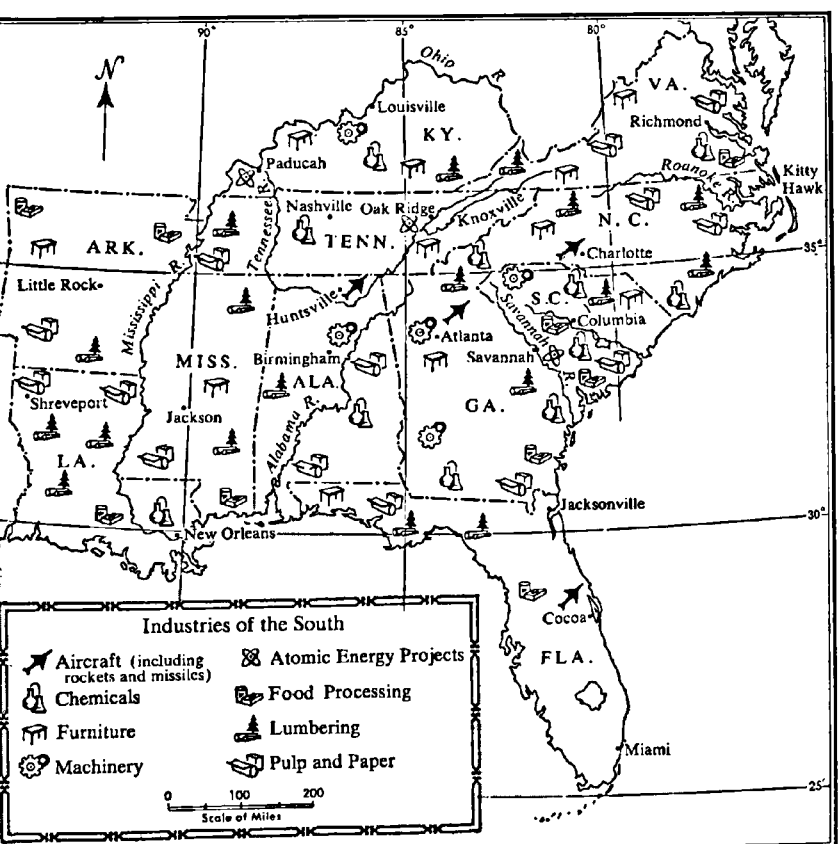
Two million Southerners now work in factories, and millions of others have jobs that wouldn't exist except for the industrialization of the South.

The tempo is still picking up. "A new industry goes

into operation somewhere in the South every 24 hours," a Southern publisher stated recently.

It took a long while, but William Gregg's views are now widely accepted. Many Southern cities and states are passing laws to *attract* new industries. For example, some assure industries that their taxes will be low during the years they're getting established in the South.

As a result, many older industries have been "southbound" since World War II. Entire textile plants have been moved from New England to the South in some cases. In others, companies have decided to keep their



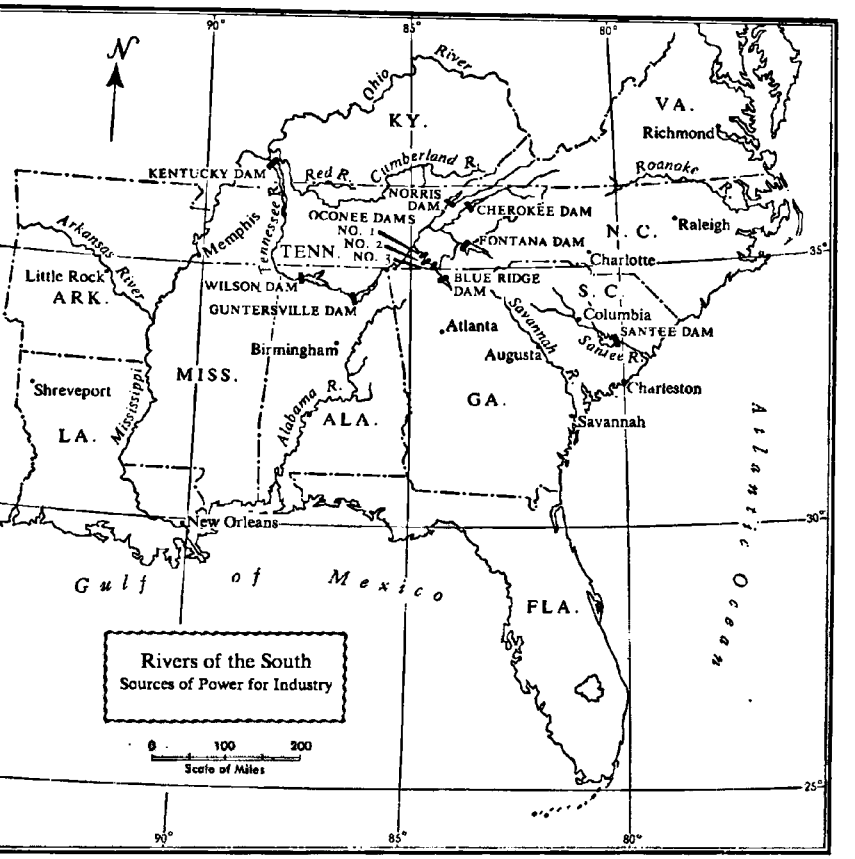
older factories in the North but to build most of their new ones in the South. Today the South has 90 per cent of all the textile mills in the United States.

In addition to low taxes and favorable laws, industries have been attracted to the South by three things: power, raw materials, and people.

The many mountains of the South help produce power. Rains fall when air rises to the cool tops of high mountains and its moisture condenses. This rain water flows into streams which become swifter and

Two million Southerners now work in factories.

Creole Petroleum Corp.



swifter as they run down steep mountainsides. The water's power can be harnessed to make electricity.

Until the 1930's and the 1940's, little of the South's potential power was harnessed. Today the biggest power project in the world is the Tennessee Valley Authority. As the Tennessee River flows through Virginia, Tennessee, Alabama, Mississippi, and Kentucky, its enormous power is tapped through a system of twenty-six huge dams. Hundreds of other rivers in the South are harnessed on a smaller scale.

There are other important sources of power, too. Coal, oil, and natural gas can be used to make steam to spin the generators that make electricity. Most power companies supplement water power with steam to generate electricity. But water power is still the cheapest and the most plentiful.

The raw products of the South include its still important cotton, and 66 other major farm crops. And today the South produces over half the minerals being used in the United States.

Electric power has attracted thousands of new factories to the South.
Celanese Corporation

Celanese Corporation

Ninety per cent of the nation's textile mills are in the South.

Undoubtedly, the most important of all Southern resources is its people. In the old days some factory owners thought it would be a mistake to try to take people off Southern farms and put them to work in factories. They felt that a man accustomed to working with a mule and plow would be overwhelmed by the complexity of machinery. But when the first textile mills moved South from New England, many South-

Better medical care is one result of the South's new prosperity.

Health Information Foundation

Greenville Chamber of Commerce

Modern schools have replaced the shabby, ill-lighted old ones.

ern farmers adapted themselves to factory work with surprising speed.

In those days, however, there was a ceiling on just how high most Southern workers could go in factories and mills. With limited education, Southern workers couldn't compete for jobs as foremen and executives. Northerners filled those posts.

Today the ceiling is unlimited. The old country schoolhouses with gaslights and potbellied stoves are disappearing. They've been replaced by some of the best-equipped new schools in the nation. As more and more Southern people complete high school and go on to college, the whole standard of living rises.

Part of that rise can be traced to the birth of a new age in the early 1940's. It began in great secrecy in one

of the most isolated and underdeveloped parts of the South. The area was chosen because it was some distance from the nearest city and could easily be protected from snoopers. Another reason for the choice was the recent completion of the giant Norris Dam nearby—part of the enormous T.V.A. program.

A young railway ticket agent in Clinton, Tennessee, was one of the few people in this isolated area who suspected that something very strange was going on around him.

Early one morning in 1942, the young agent looked up from his schedules to watch a passenger train pull in. He had lived in Clinton all his life and knew many of the people who came and went through the station. In a small town like Clinton, a stranger was someone to be curious about.

As the agent watched, three men stepped from a sleeping car and looked up and down the platform. Then they walked toward a parked car, spoke to the driver, and stepped in.

"Three more strangers," the agent remarked to the gray-haired station master. "That's six this week. And I don't even know who meets them! I never saw that car before in my life." He reflected a moment. "I wonder if they're spies?"

The older man laughed.

"They probably have something to do with that new

plant out in the valley," he said. "The freight cars are still bringing in building materials—more every day."

"If it's a war plant, it must be a whopper," remarked the agent. "They have enough shingles and glass and pipe to build a town the size of Clinton."

"Of course it's a war plant," said the station master. "What else would they be building nowadays?"

"But those men didn't wear uniforms."

"You know how it is in wartime—probably something secret."

New workers began pouring into an isolated section of Tennessee.

Reynolds Metals Company

Three years later, the secret was out. In July, 1945, the first atomic bomb was dropped on Japan. Clinton, Tennessee, and the rest of the world learned that the materials for that bomb were made at Oak Ridge—the mysterious "plant in the valley" a few miles from Clinton. The pipe and shingles and glass had been used to build a city considerably bigger than Clinton. At Oak Ridge, 75,000 people—mostly Southerners—lived and worked in such secrecy that only a handful of the workers themselves knew what they were making.

The terrible weapon which they had helped produce had also taught men the tremendous constructive value of atomic energy.

By learning to split the atom—which had long been considered the smallest particle of matter—American scientists ended World War II much earlier than expected. But the price of victory was the destruction of two great Japanese cities.

Atomic scientists were eager now to use this power constructively. They knew it could help conquer disease, increase food production, and bring prosperity to impoverished parts of the world.

A number of minerals—little needed before—were essential for nuclear research in the new Atomic Age. A Montana gold miner was one of the "prospectors" who decided that the search for these minerals should begin in the South, the birthplace of the Atomic Age.

Cities Service Company

Secrecy surrounded atomic scientists' experiments.

Reynolds Metals Company

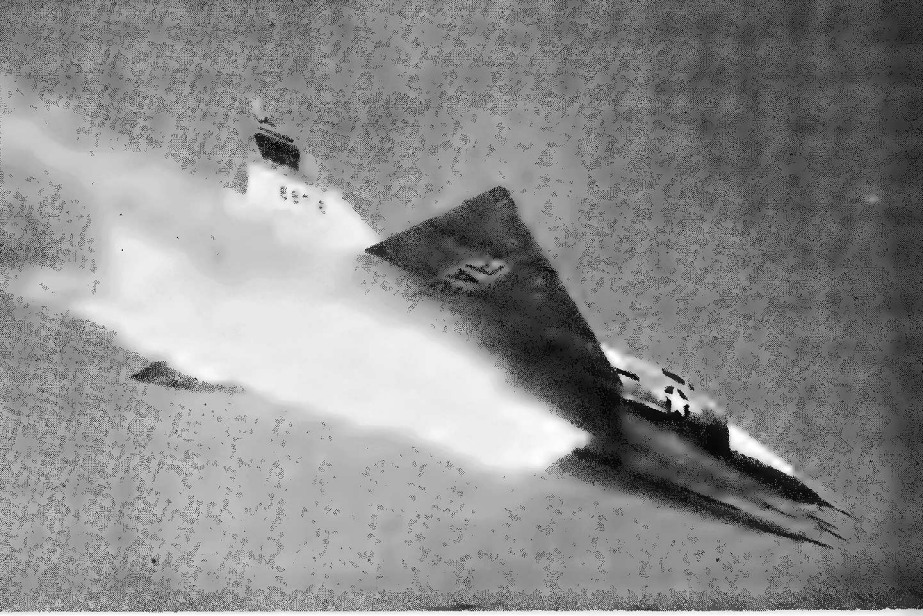
The South began to search for long-hidden mineral wealth.

6. New Uses for Old Materials

A GOLD MINER from Montana headed East in 1950 to prospect for valuable minerals in the Southern states. This time Owen Perry wasn't looking for gold.

Reversing the path followed by the "Forty-Niners," Perry traveled first to the foothills of North Georgia. Then he worked his way through the Carolinas, taking samples from stream beds and creeks. Along a creek bed in Aiken County, South Carolina, Perry found what he was looking for—titanium, monazite, and zircon.

These minerals would have meant little to the men who left Georgia and Carolina gold mines in 1849 to join the California Gold Rush. Today, in an age of jet engines and atomic power, all three are extremely valuable.



General Dynamics Corporation

Titanium can withstand tremendous heat without melting.

Only a trained geologist would recognize these valuable minerals. All of them look like sand. Titanium is black sand. Monazite is honey-colored. Zircon is fine, white sand—sometimes found in larger chunks that can be cut into semiprecious jewels.

Titanium is becoming the building metal of tomorrow. More and more of the jobs done by steel are being taken over by titanium. In making jet aircraft, particularly, a strong lightweight metal is necessary. Titanium is as strong as steel and only half as heavy. It can be subjected to intense heat without melting. This characteristic makes titanium useful in rockets. At high speeds, air friction creates tremendous heat.

Monazite is the ore from which thorium is made.

USAF Photo

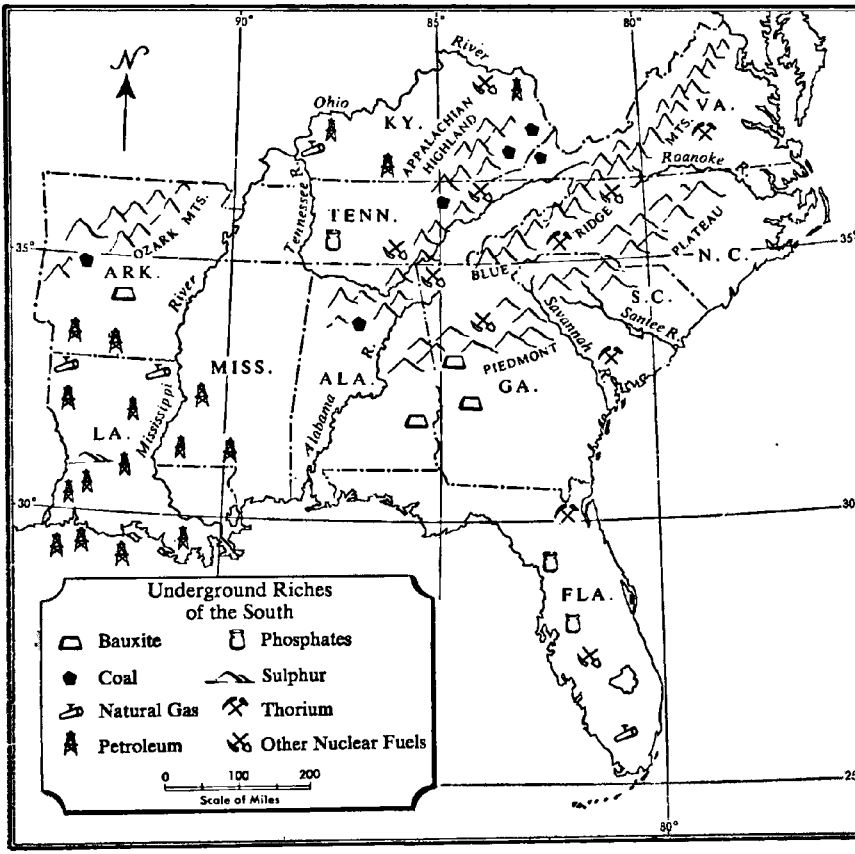
Supersonic missiles require "super metals."

South Carolina thorium had been used in the 1880's to make mantles for gas lamps. When electric lights ended the gaslight era, thorium was thought useless. The thorium mines closed in 1910.

Now in the Atomic Age—almost 50 years later—thorium has new usefulness. In a "breeder" reactor, thorium can be changed into radioactive plutonium, a key source of atomic energy.

Zirconium—the metal extracted from zircon—is being used to *build* atomic reactors. It is one of the few metals that can withstand nuclear activity without being changed itself. Like titanium, zirconium is strong and won't melt in extreme heat.

Zircon can be turned into jewelry or used to build atomic reactors.
Hamilton Wright



How did the Montana gold miner know where to look for these metals of the future? For one thing, he knew that Georgia and South Carolina had been gold-mining centers in the 1820's and 1830's. He knew that these miracle metals were likely to be found in the same kind of deposits which yielded gold. He knew what kind of land formations would probably hold these minerals.

Once he had found the mineral deposits, Perry knew

how to go about getting them out. In Montana he had a remarkable piece of floating equipment worth a million dollars. It was a dredge that dug its own channel as it moved along a stream, mining and separating the materials from the stream bed.

Today in the Horse Creek Valley, a few miles from Gregg's Graniteville, Owen Perry's Marine Minerals, Inc. is flourishing. Every 24 hours the giant dredge digs up 8,000 tons of earth and neatly filters out the valuable minerals.

Since Perry made his discoveries, South Carolina is witnessing a little "gold rush" of its own. Companies are buying up leases along rivers and streams, wherever deposits are likely to be found.

Important as these three minerals are, they are mere samples of the mineral wealth of the South. In the Southeastern states there are deposits of at least three hundred known minerals. Most of these minerals—like coal, iron and sulphur—have been known for centuries. Some of them were mined in the South as early as 1800.

But only in the past ten or fifteen years have minerals become a major industry in the South. New uses for old minerals have made all the difference.

Since 1939 the dollar value of Southern minerals has gone up 400 per cent. New discoveries of ways to use minerals have brought most of this increase since the end of World War II.

South Carolina State Development Board

Owen Perry's million-dollar dredge mines thorium, titanium, and zirconium.

Before people can use minerals, they have to know what can be done with them. Such information, today, comes from chemical laboratories. Many of these laboratories are in the South.

Strangely enough, it was the weaving of cloth that brought the first flood of chemical research to the South.

When Southern textile mills began to use more and more chemical fibers like nylon and dynel, chemists

Weaving mills first brought chemical research to the South.

Celanese Corporation

Eastman Chemical Products, Inc.

A chemist develops a new color for a plastic product.

became as necessary to them as spinners and weavers. Nylon is made of coal, air, and water by the Du Pont Company. Dynel, made by Union Carbide and Carbon Corporation, is produced by a slightly different treatment of the same basic ingredients—coal, air, water.

As different kinds of factories came to the South, they set up their own laboratories. For example, Southern farmers were using more and more chemical fertilizers. Southern fertilizer plants needed more chemists. Oil wells in Louisiana and Texas created a need for nearby laboratories to figure out new uses for the many by-products of oil. More chemists were put to work.

In an age of chemical research, the South is keeping

up with the rest of the nation—and shows promise of taking the lead. In 1957 the Southern states had 36 per cent of the nation's chemical industry. More than 20,000 professional chemists and chemical engineers were working in the South that year. Dr. Frank J. Soday, President of the Southern Association of Science and Industry, predicted that by 1967 the South will have half of all the chemical industries in the United States.

The backbone of the Southern chemical industry is petroleum. Texas has most of the oil wells of the South, but Louisiana also has important deposits. This part of the United States was once under water—otherwise there would have been no oil in the area.

Millions of years ago, the remains of countless tiny sea animals and plants were buried under the water which then covered the Gulf Coast region. Layers of rock and mud kept these remains under tremendous pressure and heat for all this time, until they became oil. Today that oil is being drilled from the ground in Texas and Louisiana. Some drilling is even being done under the waters of the Gulf of Mexico, off the coast of these states.

With oil wealth concentrated along the Gulf Coast, allied industries grew up in the same area. They use the many by-products of oil.

Chemicals made from oil are called "petrochemicals."

We use thousands of them every day. Even some of the clothes we wear—especially raincoats and boots—are made partly from oil products. Plastics, medicines, insect sprays, toys, unbreakable bottles and jars are made from petroleum that has been disguised by a series of test-tube changes.

Many petrochemicals are derived from natural gas, a by-product of oil. When oil is brought to the surface of the ground or water, a gas is given off. In the early days of oil drilling, the gas was allowed to escape into

Thousands of products including these plastics are made from oil.
Eastman Chemical Products, Inc.

the air. Now it is captured and pipelined to other parts of the country to be used in household cooking and heating—and in industry.

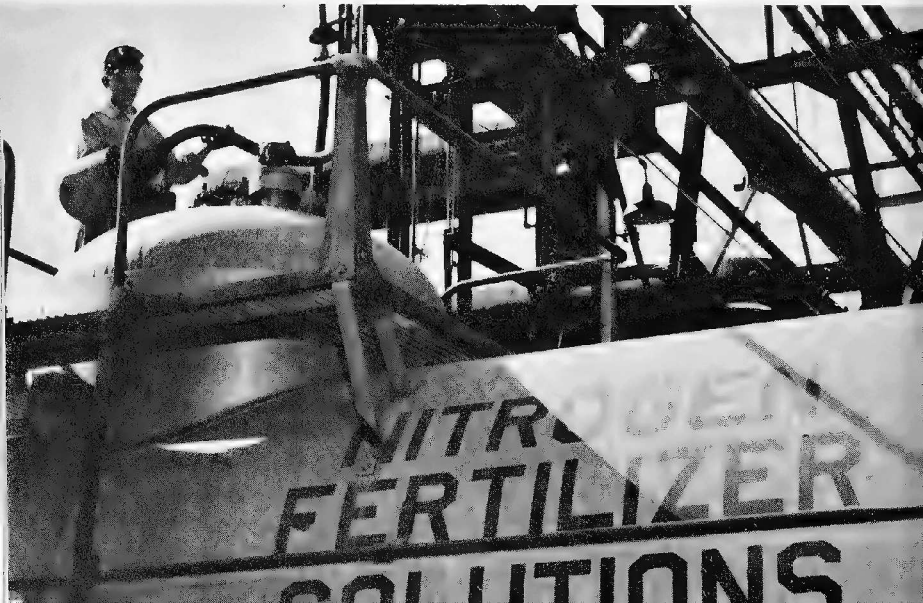
Natural gas itself has by-products. One of the most important is synthetic ammonia. Farmers need ammonia in fertilizer. This product is saving our soil from wearing out.

If anything at all is to grow in the soil, it must have nitrogen, a part of ammonia. Near the end of the last century it seemed that all the natural nitrogen in the soil was being used up. Then in 1910 a German chemist named Fritz Haber did something about it. He was the first man to make synthetic ammonia.

Today more than half the country's man-made ammonia comes from the South. Most of it is made from natural gas.

The South's natural gas is turned into many products including fertilizer.

Allied Chemical & Dye Corporation



Petrochemicals now account for more than one-fourth of all our chemicals, and they are increasing every day. More than 80 per cent of all U.S. petrochemical plants are in the South—mostly along the Texas-Louisiana coast.

Another well-known mineral is also appearing in hundreds of new disguises. Coal—found abundantly in Kentucky, Tennessee, Alabama, and Arkansas—is so dressed up by chemical research that a miner would never recognize it. Coal is being used to make transparent plastics, imitation leather, dress fabrics, and a cloth that looks like fur—to name just a few.

Today the South produces *all* the bauxite mined in the United States. Most of this is found in Arkansas. *All* the sulphur mined in this country is in the South. Three-fourths of the country's natural gas and more than 90 per cent of the phosphates are Southern products.

Bauxite becomes aluminum for aircraft and automobiles. Sulphur is essential in refining oil, in chemical manufacturing, and in metallurgy.

Phosphates are life-giving fertilizers used in agriculture. They are used in chemical industries, too. Natural gas has been mentioned as a source of nitrogen. It can be used, also, to generate electricity.

The Southern states now take from the ground more than half the minerals produced in this country. Nobody knows all that is buried underground in the South

Celanese Corporation

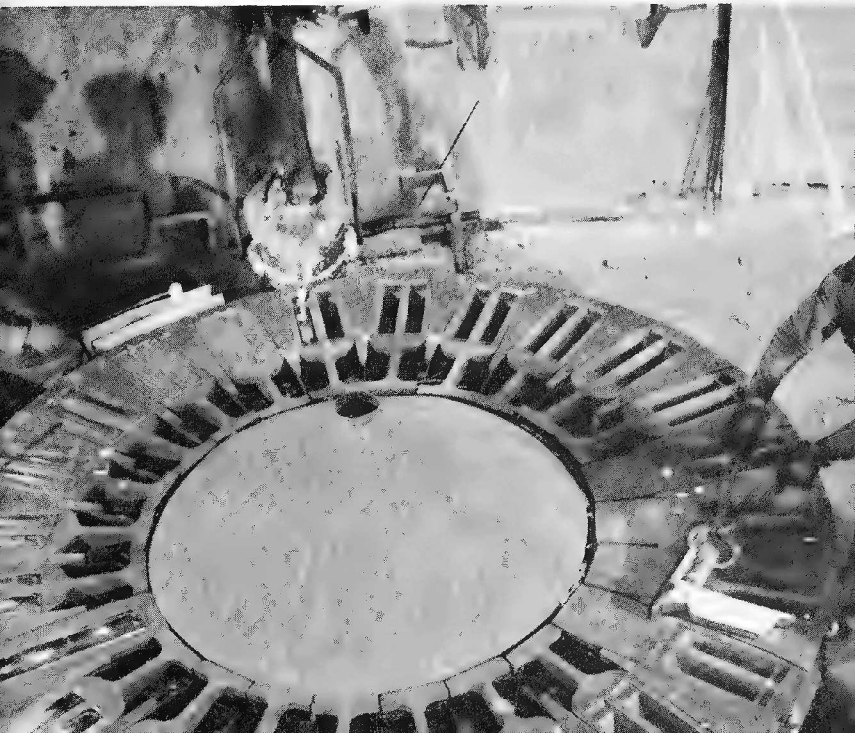
More than four-fifths of the nation's petrochemical plants are in the South.

—or what uses will be found for rocks and minerals now considered worthless. Our resources are always changing in value according to what we need and what we know.

Many minerals which are plentiful in the South are not mined because there are no factories for processing them. Others are not being developed because they exist in quantities too small to be mined profitably.

Some Southern minerals aren't being used because nobody knows what to do with them. Perhaps these rocks and sands will become valuable raw materials in a few months—or a few years—for industries of the future.

Bauxite is transformed into aluminum. Reynolds Metals Company



7. Dixieland Looks Into Space

A crowd has gathered outside the fence that encloses the towering shape. The sleek spaceship—like a lone skyscraper in the desert—attracts all eyes skyward.

A few minutes from now, inside a nearby concrete building, a man will push a button, releasing the power to launch the ship into space.

A segment of the crowd moves back to make room for a giant platform on wheels. It rolls through the gate toward the ship, carrying a load of men in bulky space suits with round transparent helmets under their arms.

All day the rolling platform has moved in and out, bringing boxes of equipment—complicated instruments, cameras, food, medicine, fuel—to be loaded into the ship. The space crew will need all this to survive the trip. For nearly a week the limited quarters in the nose of the spaceship will be their world.

United Artists Corporation

America's first space ship will probably be built in Alabama.

Allied Chemical & Dye Corporation

Huge new factories have sprung up in the cotton fields.

The last man disappears inside the ship and the tiny door closes. Then a roar of engines drowns out every other sound as the first space travelers zoom off toward the moon.

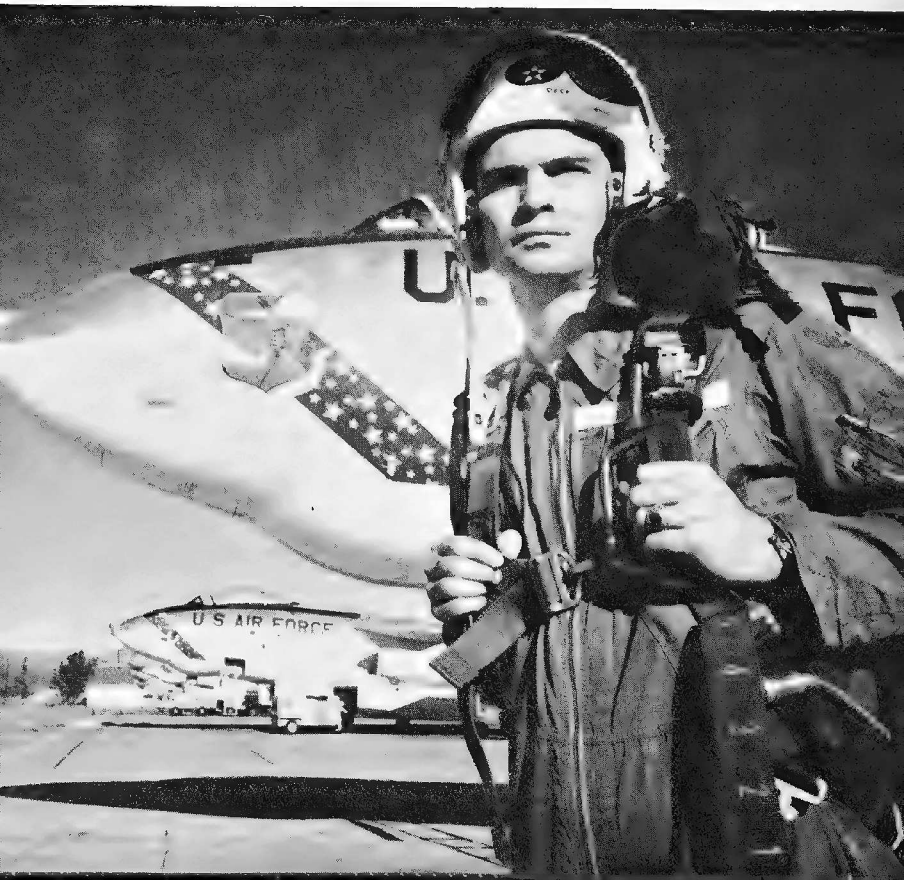
How far in the future will it be? Nobody can be sure. But when it happens, the spaceship is likely to be one that was made in Alabama. Right now at the Army's Redstone Arsenal near Huntsville, Alabama, rocket experts are working on the many problems of flight into space. In their calculations, they have already traveled

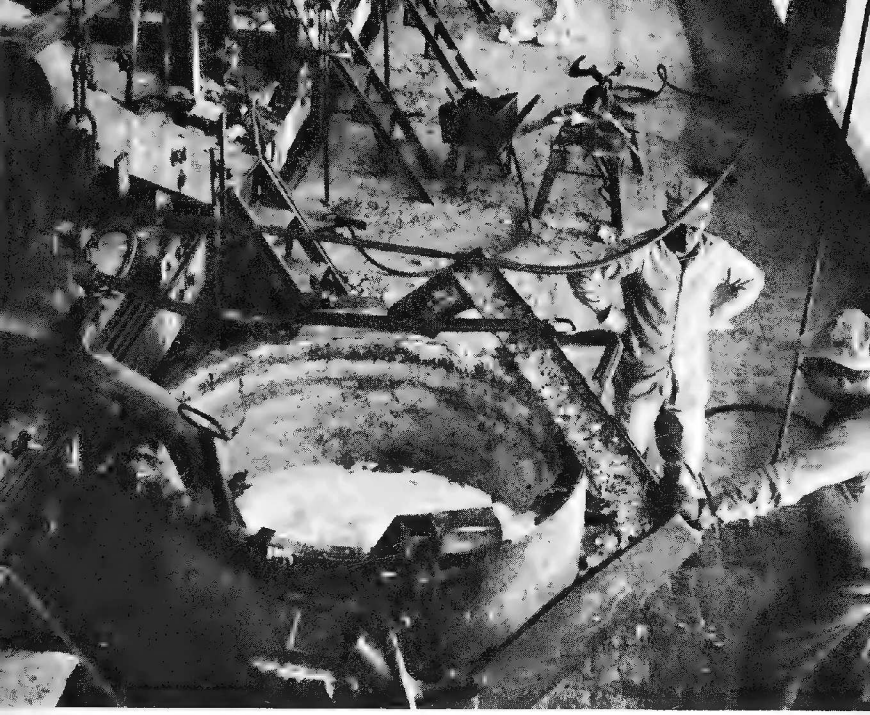
The Air Age has brought many changes to the South. USAF Photo

beyond the moon. They are working on designs for ships that would go to Mars and beyond.

From Southern laboratories and testing grounds the Air Age is reaching toward the stars. Wherever you look in Dixieland today the cotton fields have moved over to make room for aircraft centers, electronics factories, chemical research laboratories, and atomic energy plants. These new industries are being attracted to the South by the same advantages that brought textile mills —plenty of land, power, and labor.

At Southern air fields, men have solved many problems of high-altitude flight. USAF Photo





Reynolds Metals Company

Aluminum needed for airplanes is mined and processed in the South.

The Southland saw the beginning of the Air Age when the Wright Brothers launched their plane from a North Carolina beach. But the Southern states manufactured almost no aircraft until World War II.

During the war, as a defense measure, aircraft factories were spread over the broad expanse of the Southern and Western states. Such scattering would make it impossible for an enemy to bomb *all* the aircraft factories in the United States at once.

By setting up plane factories in the South, near the source of raw materials like aluminum and titanium, the Government saved the cost of shipping these raw materials. Here was a second reason for choosing Southern locations for aircraft plants.

A third reason was the mild Southern climate. For most of the year the South has ideal flying weather. This also led to training centers for airmen in various Southern states.

During the war, aircraft manufacturing boomed all over the United States. Many large, new plants were built in the South. At the end of the war, most of them closed.

Then the big manufacturers began to convert their plants to peacetime aircraft. They remembered the advantages found in the South during wartime. It made just as much sense to utilize these advantages for building commercial planes.

In 1945, the number of aircraft factories still operating in the South could be counted on the fingers of one hand. A 1957 survey showed a hundred and ten aircraft and missile plants distributed through the Southeast.

These plants made all kinds of aircraft. The 780-pound Mite—a personal plane—is probably the smallest. The 358,000-pound B-36 bomber is one of the largest. Southern factories make jet bombers and fight-

ers, trainers, helicopters, convertiplanes, supersonic bombers, and guided missiles.

The South is now the center of some of the nation's most advanced aeronautical programs. Rockets are being built and spaceships planned at Redstone Arsenal. Guided missiles that travel up to 5,000 miles are being launched from Patrick Air Force base, near Cocoa, Florida.

Probably the largest jet-age aircraft operation in the South is in Tennessee. The Arnold Engineering Development Center, near Tullahoma, is taking advantage of the wide-open spaces and mild climate to carry on top-secret work in rockets and jets.

In Florida, the Air Force creates artificial cold to test airplanes.

USAF Photo

In operation only since 1953, the Tullahoma center covers 40,000 acres. It looks like a plumber's nightmare. Miles and miles of pipe—all shapes and sizes—wind in and out among the modern brick and concrete buildings. At intervals during the day, a giant sliding door in one of the buildings opens to admit a heavy jet engine, shrouded in canvas to protect the secret of its design.

Inside the buildings, physicists and engineers are testing engines. The men work in windowless rooms, soundproofed to protect their ears from the screams of wind tunnels. In these wind tunnels, aircraft and jet engines can be tested for speeds nearly 18 times the speed of sound.

How does a wind tunnel work? A simple explanation was given by Major General Troup Miller, Jr., in charge of Air Force operations at the Tullahoma center.

"The wind tunnel's job," he said, "is to fool the airplane under test into thinking it's actually flying. Then we see how it acts."

Wind tunnels make it possible for scientists to test new jets without actually flying them. In the safety of a soundproof control room they can look at a television screen or through a periscope and see the jet "flying." By looking at dozens of dials and tubes and calculating machines, the men can tell exactly how much heat and speed the engine will withstand or at what point it will weaken.

Cornell Aeronautical Laboratories

This wind tunnel is used in testing new jet airplanes.

Much of the equipment in the Tullahoma control rooms is made by another brand-new industry that is growing in the South. The electronics industry makes parts for calculating machines, controls for trains and planes, parts for television sets, telephones and radar equipment. Electronic parts are used today in nearly every phase of communication, manufacturing, and transportation.

In a way, electronics is a branch of electrical engineering. The big electric companies own many of the large electronics plants. The abundance of power in the Southern states makes the South a natural location for these plants. Between 1947 and 1957, General Electric built 19 major electronics plants in the South. Western Electric has five such plants in North Carolina alone.

Bell Telephone Laboratories in Americus, Georgia, are storing up Georgia sunshine in a new kind of battery. This is a solar battery, still in the experimental stage, which makes use of energy from the sun.

When it comes to atomic research, the Southern states are vitally important. The open spaces of the South—and the secluded valleys—offer the isolation necessary for secret work. Power is as necessary for an atomic energy plant as for any other factory. The South has plenty of this power. Now nearly four billion dollars is invested in Southern atomic energy development centers.

The earliest of these, and still most important, is Oak Ridge. Nearly all the artificially made radioactive materials produced in the United States are created in an Oak Ridge cyclotron. The Tennessee atomic center has the world's largest plant for making Uranium-235, a chief source of atomic energy.

Anyone who wants to see how an atomic reactor works can visit the American Museum of Atomic En-

ergy at Oak Ridge. It is the only museum in the world devoted entirely to Atomic Energy. Visitors can see a miniature atomic reactor in operation. Motion pictures and other exhibits show how radioactive materials are used in farming, medicine, and industry.

A newer atomic research center is the Savannah River plant of the Atomic Energy Commission, near Aiken, South Carolina. Again, the abundant power of Southern rivers has attracted industry. And its distance from any heavily populated city gives the Savannah River plant the isolation needed for secret work.

A few years ago, when the Savannah River plant started operation, its chief products were materials used

These scientists are studying the peacetime uses of atomic energy.
General Electric Company

in nuclear weapons. More recently, the plant has begun to make radioactive cobalt, a material being used by doctors to treat cancer.

Savannah River scientists are finding more and more peacetime uses for atomic energy. They are, for example, finding ways to help farmers grow food more efficiently. Then they help preserve the food indefinitely, until it is needed.

In 1957 Governor George Bell Timmerman, Jr., addressed the South Carolina state legislature. He held up a piece of steak to introduce his subject. The steak looked fresh. Actually it was a year old.

"This steak," the governor explained, "has been exposed to atomic radiation. It will remain in its present form indefinitely, without refrigeration." This process, he said, was one of many such discoveries made at Savannah River. Now atomic radiation can be used to destroy the bacteria that make food spoil.

Another important atomic-energy operation is at Paducah, Kentucky. Here radioactive metals are being separated from their ores.

An ore-buying station at Plant City, Florida, ships necessary materials to all these atomic energy centers.

Many Southern companies are studying new ways of using atomic power in industry. The Newport News Shipbuilding and Drydock Company in Virginia is working on ships propelled by atomic power. General

Creole Petroleum Corp.

Radioactive ores are shipped to Southern atomic energy plants.

Dynamics is developing atom-powered airplanes. The Southern Power Company is testing electricity generated by atomic energy.

Suddenly the once-struggling South, land of farms, has become the research center of the future. Men whose grandfathers were cotton farmers, whose fathers helped to make cotton textiles, are becoming the chemists, physicists, electronics engineers of tomorrow. The Southerner has discovered another part of his new magic formula. He is putting the South's natural resources to work.

As late as 1947 a North Carolina economist wrote:

"A wealthy people in a lovely land—or a poor people on a barren soil. That is still the choice which the South faces."

In the years since those words were written, the South has made its choice. The threat of barrenness and poverty no longer hangs over these eleven states.

A new "magic formula" makes it certain that Southerners will enjoy their share of the wealth in the richest nation in the world.

Corning Glass Works

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